

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of:	)	<b>MAIL STOP APPEAL BRIEF - PATENTS</b>
	)	
Changming LIU et al.	)	Group Art Unit: 2143
	)	
Application No.: 09/658,424	)	Examiner: D. England
	)	
Filed: September 8, 2000	)	
	)	
For: GUARANTEED BANDWIDTH	)	
SHARING IN A TRAFFIC	)	
SHAPING SYSTEM	)	

U.S. Patent and Trademark Office  
Customer Window, Mail Stop Appeal Brief - Patents  
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401 Dulany Street  
Alexandria, Virginia 22314

**REPLY BRIEF UNDER 37 CFR § 41.41**

This Reply Brief is submitted in response to the Examiner's Answer, dated July 21, 2008.

I. STATUS OF CLAIMS

Claims 1-22 are pending in this application. Claims 1-22 were rejected in the final Office Action, dated January 9, 2008, and are the subject of the present appeal. These claims are reproduced in the Claim Appendix of the Appeal Brief.

II. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

- A. Claims 1, 5, 6 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over IVERSON et al. (U.S. Patent No. 6,052,379).
- B. Claims 2, 3, 7-11, 13 and 15-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over IVERSON et al. in view of HO (U.S. Patent No. 6,862,270).
- C. Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over IVERSON et al. in view of Applicants' admitted prior art.
- D. Claim 12 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over IVERSON et al. in view of CHIRUVOLU (U.S. Patent No. 6,839,321).

III. ARGUMENTS

In the "Response to Arguments" section, beginning on page 16 of the Examiner's Answer, the Examiner presents arguments in addition to those presented in the "Grounds of Rejection" section of the Examiner's Answer and the Final Office Action, dated January 9, 2008. Although Appellants' arguments presented in the Appeal Brief, filed May 7, 2008, are applicable to these arguments, Appellants submit the following additional remarks.

## A. Claim 1.

With respect to claim 1, the Examiner responds to Appellants' assertion that the application of the rationale set forth in *St. Regis Paper Co. v. Bemis Co.* to the features of claim 1 is improper. Appellants disagree with the Examiner's response.

In the Appeal Brief, filed May 7, 2008, Appellants submitted that the Examiner had improperly cited and applied a mechanical or *per se* rule relating to the "mere duplication of essential parts" as originally set forth in the *St. Regis Paper Co. v. Bemis Co.* case. The citation of the rationale of the *St. Regis Paper Co. v. Bemis Co.* was made without comparing the facts in *St. Regis Paper Co. v. Bemis Co.* with those in the present case and without providing an explanation as to why, based upon this comparison, the legal conclusion in the present case should be the same as that in *St. Regis Paper Co. v. Bemis Co.* Instead, the Examiner relied upon *St. Regis Paper Co. v. Bemis Co.* as allegedly establishing a *per se* rule that duplication of parts involves only routine skill in the art.

In responding to these assertions, the Examiner submits that IVERSON et al. discloses that underutilization of the first bucket 402 results in excess bandwidth eventually being "spilled over" into second bucket 404. When a burst of bandwidth is necessary, available bandwidth

from second bucket 404 may be used to make up for any bandwidth deficiency in first bucket 402. The Examiner then alleges that the first bucket 402 may be considered to be the guaranteed bandwidth bucket of claim 1 and the second bucket 404 may be considered to be the shared bandwidth bucket of claim 1. (Examiner's Answer – pg. 17).

Even assuming *arguendo* that IVERSON et al. discloses a shared bandwidth bucket (e.g., second bucket 404) associated with a single guaranteed bandwidth bucket (e.g., first bucket 402) (a point that Appellants do not concede), this association is clearly a one-to-one association, resulting in bandwidth overages from bucket 402 being applied to bucket 404 for subsequent use when the level of bucket 402 (and only bucket 402) drops below zero. Contrary to this alleged disclosure of IVERSON et al., claim 1 recites a shared bandwidth bucket being associated with a plurality of guaranteed bandwidth buckets. By associating multiple guaranteed bandwidth buckets with a shared bandwidth bucket, traffic resources may, for example, be more optimally distributed.

In the Examiner's Answer at pg. 17, the Examiner acknowledges that IVERSON et al. does not disclose a shared bandwidth bucket being associated with a plurality of guaranteed bandwidth buckets and instead alleges that it "could be obvious to one of ordinary skill in the art at the time the invention was made to add another guaranteed bandwidth bucket that is the same as the second bandwidth bucket 404 (which the Examiner has previously equated with the claimed shared bandwidth bucket), therefore making a 'plurality of guaranteed bandwidth buckets.'" (emphasis added, Examiner's Answer – pg. 17). The Examiner relies on M.P.E.P. § 2144.04 citing *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) stating that "mere duplication of parts has no patentable significance unless a new and unexpected result is

produced.” (Examiner’s Answer – pg. 18). The Examiner then alleges that the “only result of having more than one “guaranteed bandwidth bucket” would be to have more bandwidth reserved for the user in case of large bandwidth demands. Appellants respectfully disagree.

Irrespective of the propriety of applying *per se* rules to establish obviousness (as addressed below), Appellants respectfully submit that the Examiner’s rationale in alleging obviousness is fundamentally flawed. Contrary to the Examiner’s allegations, claim 1 does not recite a plurality of shared bandwidth buckets associated with a guaranteed bandwidth bucket as would appear to equate to the Examiner’s suggestion of adding another “bucket that is the same as the second bandwidth bucket 404.” Rather, claim 1 recites “providing a shared bandwidth bucket associated with each of the plurality of the guaranteed bandwidth buckets.” By associating the shared bandwidth bucket with each of a plurality of guaranteed bandwidth buckets, traffic resources may, for example, be more optimally distributed. This is in direct contrast to the one-to-one relationship disclosed by IVERSON et al. or even the allegedly obvious combination of multiple shared bandwidth buckets (i.e., second buckets 404) being associated with a guaranteed bandwidth bucket (i.e., first bucket 402) that is proposed by the Examiner.

Regarding the application of the rationale set forth in *In re Harza*, § 2144.04 of the M.P.E.P., as a preamble to the discussion of various patentability rationale provides:

[i]f the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court. Examples directed to various common practices which the court has held normally require only ordinary skill in the art and hence are considered routine expedients are discussed below. If the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection. (emphasis added)

Clearly, application of any principles identified in § 2144.05 of the M.P.E.P. should only be applied upon careful review of the facts of the case law to be applied in relation to the claimed subject matter. The Examiner has not provided such a basis. In fact, in the present case, the Examiner does not advance any factual basis at all to supply the admitted deficiencies in the disclosure of IVERSON et al. with respect to the features recited in claim 1. Instead, the Examiner attempts to overcome the deficiencies in IVERSON et al. by resorting to so-called mechanical or per se rules of obviousness allegedly established by the *In re Harza* case. However, such per se rules do not exist and the reliance thereon by the Examiner to establish obviousness under § 103(a), regardless of statements or suggestions made in the M.P.E.P., is improper. See *In re Ochiai*, 71 F.3d 1565, 1570, 37USPQ2d 1127, 1132 (Fed. Cir. 1995); *In re Wright*, 343 F.2d 761, 769-70, 145 USPQ 182, 190 (CCPA 1965).

For example, the Examiner does not attempt to compare the facts in *In re Harza* with those in the present case and explain why, based upon this comparison, the legal conclusion in the present case should be the same as that in *In re Harza*. Instead, the Examiner relies upon *In re Harza* as allegedly establishing a per se rule that duplication of parts has no patentable significance unless a new and unexpected result is produced. As stated by the Federal Circuit in *In re Ochiai*, “reliance on per se rules of obviousness is legally incorrect and must cease.”

For at least the foregoing reasons and for those reasons given in the Appeal Brief, filed May 7, 2008, Appellants submits that the rejection of claim 1 under 35 U.S.C. § 103(a) based on IVERSON et al. is improper. Accordingly, Appellants request that the rejection be reversed.

## B. Claim 16.

With respect to claim 16, the Examiner alleges:

it is clear that both buckets receive bandwidth at a rate. In Iverson, the first bandwidth bucket receives bandwidth at a rate CIR, which the Appellant points out in previous remarks made. The second bandwidth bucket receives bandwidth that is the overflow from the first bucket, this could be at a rate of CIR if the first bucket is full and nothing is transmitted at that time or CIR minus the amount used by the user that is overflowed from a full first bucket or 0 if the CIR is utilized in a full first bucket or if the first bucket is not full. Therefore it is clear that both buckets have a type of rate at which bandwidth is filled. This could further be utilized in the duplication of Iverson's second bandwidth bucket, i.e., the first bandwidth bucket is full and overflows to the second bandwidth bucket, which could also be full which then overflows to another bucket that is the same as second bucket 404. In this scenario and interpretation the duplicate bucket 404 would have a rate of CIR.

(Examiner's Answer – pp. 18-19). Appellant respectfully disagrees.

Bandwidth flows at the CIR (committed information rate) into the first bandwidth bucket 402 of IVERSON et al (See, e.g., IVERSON et al. at col. 17, lines 41-43). Based on a usage of this bandwidth, some, all, or none of the bandwidth in first bucket 402 may flow into second bucket 404. Clearly, this intermittent overflow from the first bandwidth bucket 402 to the second bandwidth bucket 404 in IVERSON et al. is not a second information rate as would be required based on the Examiner's apparent interpretation of claim 1, in view of IVERSON et al.

For at least the foregoing reasons and for those reasons given in the Appeal Brief, filed May 7, 2008, Appellants submits that the rejection of claim 16 under 35 U.S.C. § 103(a) based on IVERSON et al. in view of HO is improper. Accordingly, Appellants request that the rejection be reversed.

IV. CONCLUSION



In view of the foregoing arguments, and those presented in the Appeal Brief, filed May 7, 2008, Appellants respectfully solicit the Honorable Board to reverse the Examiner's rejections of claims 1-22 under 35 U.S.C. § 103.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

HARRITY & HARRITY, LLP

By: /Robin C. Clark, Reg. No. 40,956/  
Robin C. Clark  
Registration No. 40,956

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11350 Random Hills Road  
Suite 600  
Fairfax, Virginia 22030  
(571) 432-0800

Customer No. 44989